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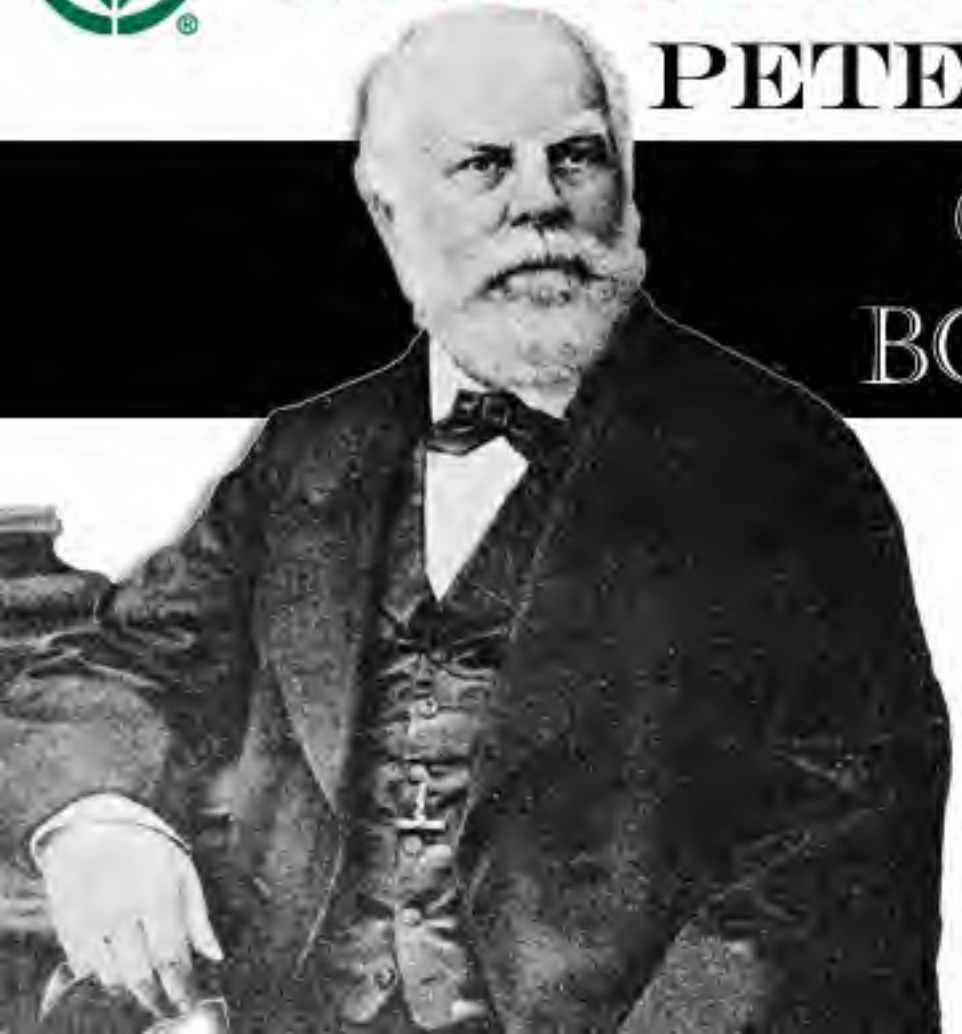
George Engelmann Botanical Notebooks



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MISSOURI BOTANICAL GARDEN

36. [illegible] **Hugo** (*Lemoine*), [illegible] [illegible]
838. **Emily Laxton** (*Laxton*), very fine scarlet . . . . . 4 „
839. **Guiding Star** (*Laxton*), purplish rose, a bushy and very dwarf variety . . . . . 4 „
840. **Illuminator** (*Laxton*), purplish carmine, very distinct, extra 3 3
870. **La Constitution** (*Lemoine*), brilliant salmon red . . . . . 4 „
871. **Le réserviste** (*Lemoine*), peach-blossom rose, large bouquets . . . . . 4 „
872. **Le Phare** (*Lemoine*), orange brick, umbels of great dimension . . . . . 4 „
873. **L'Herzégovine** (*Lemoine*), rose violet, large and plated umbels, a floriferous variety . 4 „
922. **Auguste Villaume** (*Crousse*), a dwarf imbricated variety, very floriferous, lively orange minium red . . . . . 4 „
923. **Comte d'Incourt** (*Crousse*), very lively fiery salmon, pure white centre, a very floriferous variety . . . . . 4 „
924. **Edouard Lequin** (*Crousse*), violet amaranth, centre shaded lively red, a very floriferous variety . . . . . 4 „
925. **Marquis de Chambon** (*Crousse*), lively salmon entirely striped and flamed white and rose, extra . . . . . 4 „
926. **Marguerite Bruant** (*Bruant*), salmon rose, whitish on the edges. . . . . 4 „
927. **M. G. Raverdy** (*Delesalle*), carmine violet, a rich colouring 6 6
928. **Souvenir de Carpeaux** (*Delesalle*), upper petals vermilion, outer petals violet cherry red, a very dwarf and very floriferous variety 6 6
929. **Mad. Anssens** (*Delesalle*), clear carmine rose, very fresh 6 6
930. **Fleur de mai** (*Delesalle*), pure white, a very floriferous variety 6 6
931. **M. Bourgeois** (*Delesalle*), orange salmon 6 6
932. **Sénateur Testelin** (*Delesalle*), vermilion orange, the most striking of the colouring known 6 6
933. **M. César Routier** (*Delesalle*), copper-coloured orange, shaded violet of great effect . 6 6
934. **M. Dibos** (*Delesalle*), rosace-shaped flower, porcelain white, rose centre 6 6

		s.	d.
380.	**Mad. Lemoine** (*Lemoine*), centifolia-rose colour	„	5
391.	**E. G. Henderson** (*Aldebert*), crimson, a floriferous variety	„	5
414.	**Vésuve** (*Lemoine*), scarlet	„	5
445.	**Tom Pouce Marie Lemoine** (*Lemoine*), clear rose, a dwarf variety, extra	„	5
452.	**Wilhelm Pfitzer** (*Lemoine*)	„	5
470.	**Marie Crousse** (*Crousse*), satiny glazed rose, superb	„	5
497.	**M. de St-Jean** (*Crousse*), dark carmine rose	„	5
512.	**Mad. Michel Buchner** (*Lemoine*), salmon rose	„	5
532.	**Louis Van Houtte** (*Lemoine*), dark minium colour	„	5
535.	**M. Gladstone** (*Lemoine*), lively orange rose	„	5
587.	**Mary Elisabeth** (*Bull*), pale rose	„	5
599.	**Patriote Lorrain** (*Lemoine*), lively carmine rose and fiery red, superb	„	5
605.	**Préfet de Lyon** (*Lemoine*), velvety scarlet purple	„	5
618.	**Rose de Mai** (*Crousse*), tender flesh rose, cup-shaped	„	5
623.	**Rose pur** (*Alégatière*), fine lilac rose	„	5
628.	**Alice Crousse** (*Crousse*), lively flesh colour, salmon centre	„	10
629.	**Aline Sisley** (*Jean Sisley*), white, changing into pale rose, a dwarf and floriferous variety	„	10
633.	**Aurora** (*Laxton*)	„	10
636.	**Charles Darwin** (*Jean Sisley*), crimson purple	„	10
645.	**E. J. Lowe** (*Laxton*)	„	10
646.	**Éblouissant** (*Delesalle*), fiery red, shaded orange	„	10
657.	**Jeanne Alégatière** (*Alégatière*), clear rosy lilac	„	10
659.	**Jewel** (*Laxton*), dark scarlet	„	10
664.	**Louis Delesalle** (*Delesalle*), cherry red with scarlet reflex, lightly carmine	„	10
671.	**Mad. Henri Delesalle** (*Delesalle*), very fresh rosy carmine, a dwarf and floriferous variety	„	10

...SSOURI BOTANICAL GARDEN
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04711

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0 1 2 3 4 5 6 7 8 9 10 cm

Pinus Cubensis vera (Griseb.) Wright

leaves mostly in 3's
8–9 c. (?–12) inches long, 4/5 l. wide
sheath 6–7 (or 8) l. long when young
3–4 l. long when old
cones d–3 1/2 inches long, strongly fragrant
pendent. Squarrose
scale flowers 1 3/4–2 inches long
involucre 14–16 scales
outer ones 1/2 as long as largest.
Cones (Terminal) lateral 1/7
apophyses rhombic, transversely carinate,
radially grooved
umbo rather flat, prickle short
Seed 3/2 l. long, faintly ridged
wing 6 l. long, acute, widest near base

Wright 3189. (without, terminal cone) 1462 a
Ramon de la Sagra
De Tonqueville, Christy

mostly in 2's
—. 5–8 1/2 inches long
—— 4 l. long when young, 3 when old
——— 1 1/2 l. long, very slightly fragrant
rather deciduous

not seen

Wright 3190 old cone
1462 b good fruit.

1/2 or less
2/3–5/6 l. wide

"Low down on branches, recurved" Wright.
Talent
release, radially ground thickened
on edge, and carinate
umbo incurved prickle short
2 1/2 l. long, faintly ridged
— d. rarely longer acute, widest
at base

The common tree = plain, ad upthills
(terminal cone erect, rare,
only on high ridges. Wr)

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2 fol. 1462. a. Terminal cone, recurved. small seed wing
3189. a Terminal cone erect large seed wing with middle
3190 ~~fol. bract~~ stem. trunk & stouter leaves or below stouter
detached Cone

wright writes: ÷ two ÷ it
699 fide wright: leaves in 2's ✓ ones low down on branches
and recurved; ÷ in plain drop to the
height of Monte Verde; common; ÷ it is the
regular P. Jeffreyi Gris. for which he quotes
nro 598 & 1462

3 fol. 1462. b. lateral Cone recurved.
1389 b mile flow

÷ it
700 and 1052 fide Wright ● leaves in ~~threes~~ twos
cones Terminal, erect, never reflexed;
cones larger & lighter colour than the other
rare & only on high ridges

11742

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P. Cubensis Gris. N. Wright p. 530 (1862)

Foliis ternis geminisque teretibus (6–polliaribus);
stabilis albidis vel geminis pedunculis ovato
obtusis demum recurvis; apophysi depressa
laeviter convexa et transversim carinata pallida
sacis carbonatis, carbone parvo brevius emersatis
d albidoribus Cuba orientalis Faxon, Wright 597. 1862

Gris. Catal. N. Cub. 1866. p. 217 fol. ternis, raro geminis, 6–12" long.

Wr. 597. 1862 b.

var pachycarpa Wr. fol. geminis (raro ternis) stabilis
subterminalibus solidariis brevissime pedunculatis, ovatis
(Wright 3189. 3190. 1462a.)

See Particulars p. 396 (no 40)

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Wallisdump. wood of Elliotti bark
Yucca glauca seeds ?
wood ? Bark ?
Diff. albumen seasons ?

Dear Dr.,

Will you please come

over this

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3189. Wright Cuba

1. masculo, floreus - foliis ternis latis, compressis 8" longis
~~sterilibus~~ utrinque albo-ciliatis
bracteis (anni prioris) caducis, vaginis (anni prioris) 6"' longis
bracteis acuminatis lanceolatis fuscatis 4" longis
~~caudatis~~ (14-16 perigynialibus spicam) ~~foliis~~, ~~sterilibus~~ medius latis
extimas acutissime caudatis, ~~fertilibus~~ superiibus, intimis
brevibus.
acutis 18"' longis, antheris (2) ÷ $\frac{21}{34}$ angst. with 8 & 13 pores
nearly pyramidal
1 ÷ $\frac{19}{20}$ — 9 & 11
9 — $\frac{11}{18}$ — — 7 & 11
antheris cristatis

Pollen 0.030 - 0.034 mostly 0.032 Cir ÷ Compact diameter.

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Cuba 3189 Pinus Cubensis Gr. Mich 22~65

Latin pair-pinnate scales (Figure II)

scales 1.2.5.6 removed

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LEITCH & CORLIES,
DRUGGISTS,
South-west Corner Fifth and Market streets.

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3189
Cuba Wright

Diagr of perigonial scales

March 23 1865

Diagram perigonial scales

11.12.13
according to position & size
(13) (11) (12) according to vernation (overlapping

see figure and actual scales of same Date

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3189.2 / femina fructifera foliis binis terminibus 7½–10" longis
petiolo vix setoso, non abbreviatis
Gracilis (anni primi) caudex vaginis (anni priores) 5–6" longis
basalis gemmae terminales 6–7" long lanulat. alte marginat, fimbriat
strobili pedunculo squami reconni stipato 3" longo, erecto insuper
basi subturbinato ac 1–$\frac{13}{21}$ 5×8 seriebus prominentibus longis
squamisque umbone rhombeo transversim carinato
depresso
angulo infimo saepe producto
elevatione centrali parva depressa mucrone
sessilibus oblique rhombeis infra acutatis, fusco
inferiore laevibus nitidis.
ala (obscura) semine triplo longiore, libera,
medio sem. infra medium adnata.
strobilus abbreviatis ramis ejusdem anni
Sem. cum ala 9" longo

11747A

11747B

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LEX. LEITCH,
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r. 4th and Olive Sts., St. Louis

Pinus Cubensis

Forest near the town of Palacios on the south side of the Island 30 leguas west of the Havana (?). The forest belongs to the Convent of Santa Clara; sandy soil, nearly level with the sea. (British Museum)

Havanna, Ramon de la Sagra

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Pinus Elliottii

March 12 1871

S. Carolina Dr Ridlichamp

female ament
scale with
bract ×10

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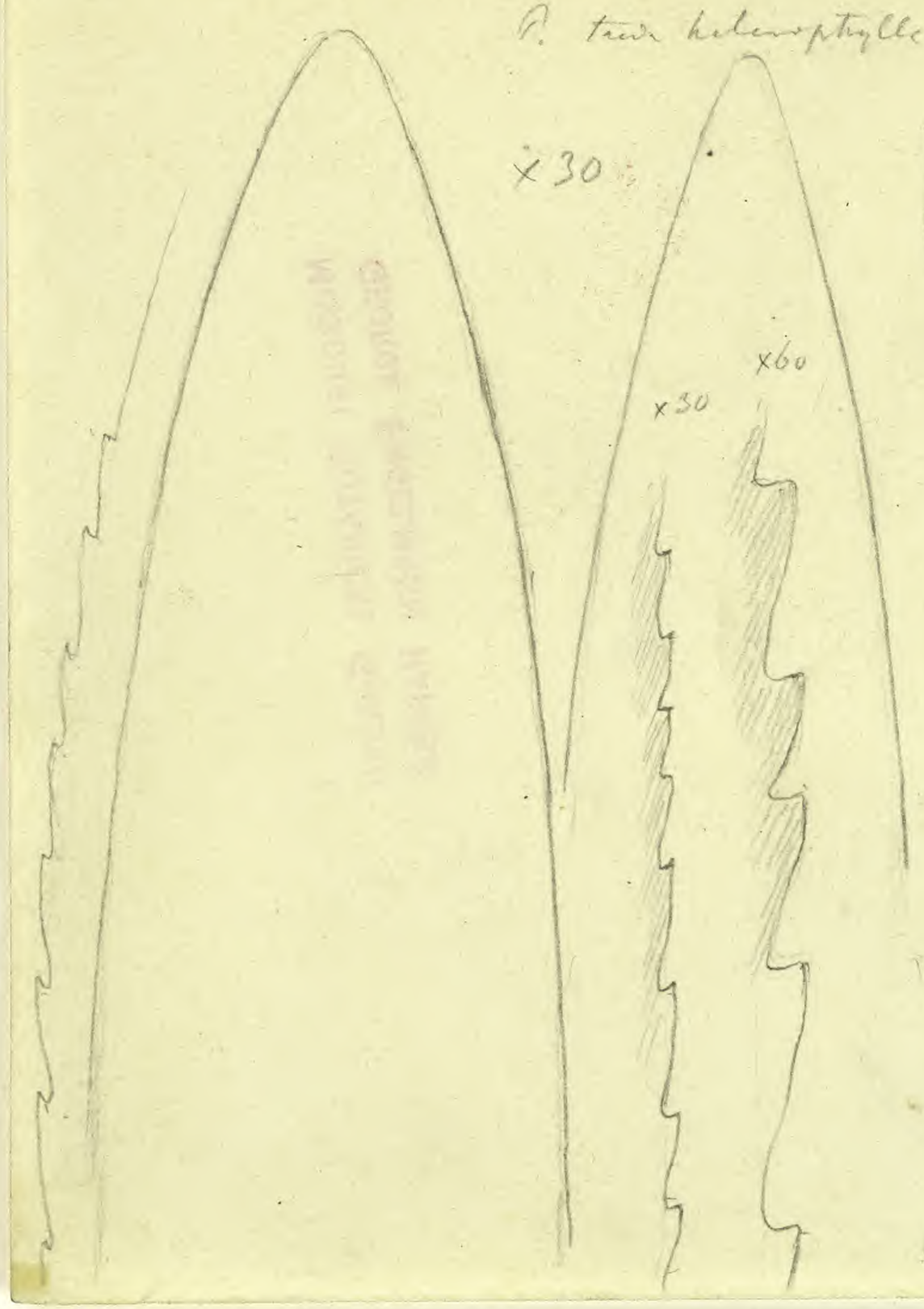
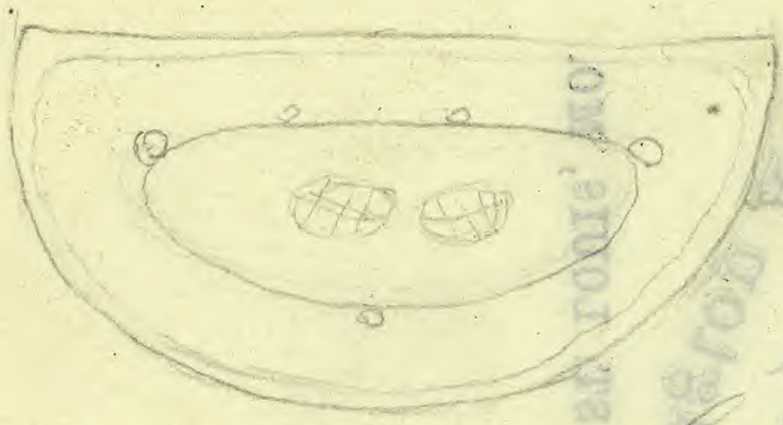
Pinus

March 15 1877

P. taeda heleroptylla, Elliott — Bluffton S.C. & Mellichamp.





leaves

leaves $\frac{40-55}{30}$ = $1\frac{1}{3} - 1\frac{3}{4}$

1.33 – 1.83 mm wide

length 18–20 cent.

exceptionally 15 to 30 cent long

(7–8 inches & 6–12 inches)

sheath, fork 15–17 mm (7–8 ″)

old 10–12 mm (5–6 ″)

teeth 0.15–0.35 distant

July 1877

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L. O. WOODRUFF,

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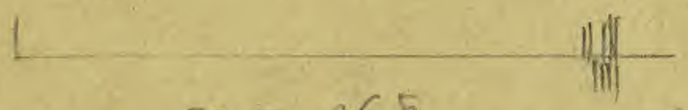
Pinus Elliottii

March 21 1871

Pollen X



33.5 - 36.8 / 415, mean 36/415 mm

34 - 36.5 0.080 - 0.089 mm

Bluffton or Hollidaysburg,
authors not quite positive
but pollen grains selected

July 1877. Pollen 0.075 - 0.090
or average, 0.082 mm long

0.075 - 0.090 mm
~~0.038 - 0.045~~ lin.
39 — 40

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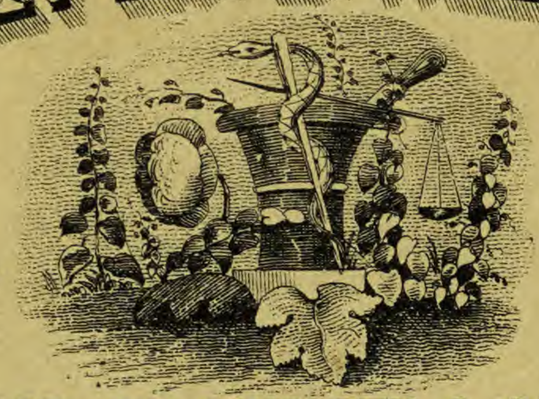

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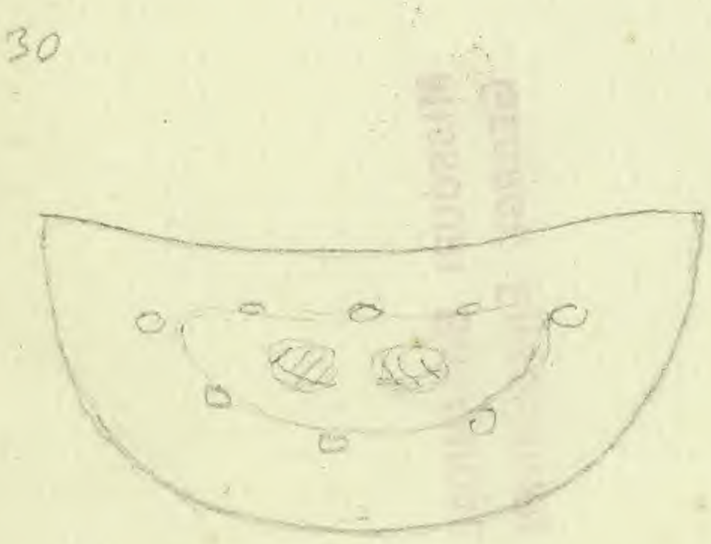
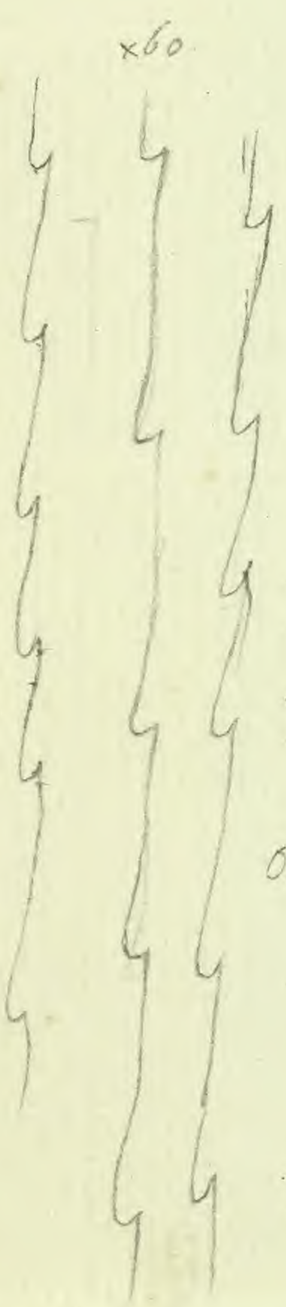
Pinus Elliottii

Oct 13 1875





Ducts 2 - 8 or 9

hypodermis cells very variable
form - Teeth contiguous, rather
or their petioles (± 8 irregular
not as regular
as Palustris

Teeth $\frac{15-20}{60}$ mm Distant $\frac{1.5-1.8}{60}$ long

0.17 - 0.25 - 0.33 0.025 - 0.030

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1753

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O. Ellisii

St Pamela

section of scale

a

a

s

b

b

15

13

14

4/1

9

section

Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

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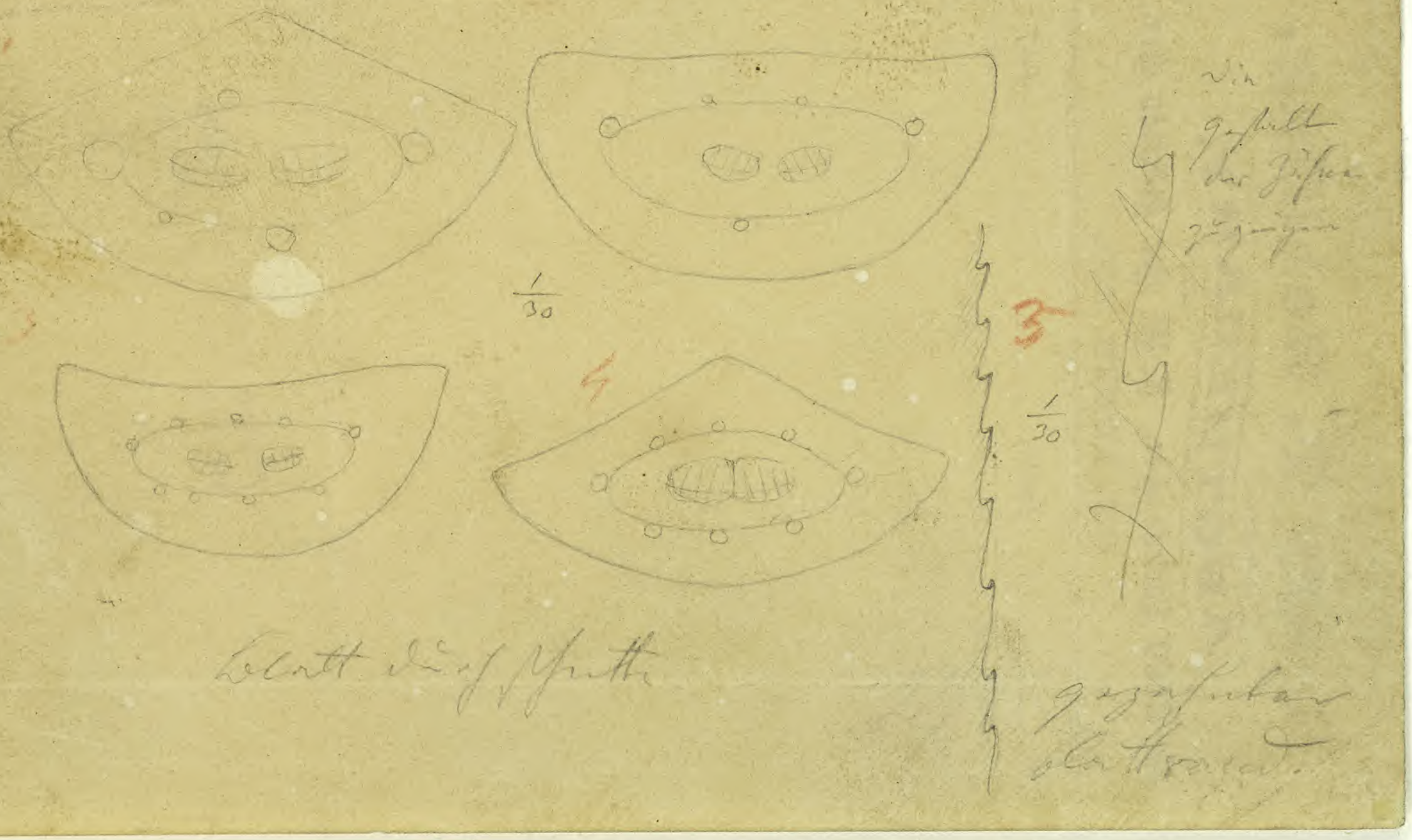

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3-5 lamps

Internal duct

17. Australes

20. Ecuattiae

637-654

Jan. Feb. Ma

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Sium Bulbocastanum Spr.
Bunium bulbocastanum L

Pers I, 308
Roth II, 210
Spr I, 906

24 In sylvaticis agris et arvis
Europ. med. et austr.

Host Salzburg
1825
Fl palat. natu rhenano
exposse 1826

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is paper was left
been included i
unde der Berlin,'
is mass of mete
the museum of th
to the east of the
of Tamarngul.
gravity 7.86. In
ion of chloride of
e composition of t
Na
O.
e nickel and coba
balt; this left 81.6
81.42, 85.61, 87.

e numerous uses w
as diatoms or inf
Gruene and Hag
and Hutzel:
As pure silica in th
water-glass, water
rine.
Because it is a poo
air apparatus, and
ing fire boxes, and
, etc.; for filling t
sing the conduits
port for heating ve
Because of its prop
material previous
ues solid, making
ecause the infusor
n bandages and su
own weight of liqu
it to replace the filt
yer of dry infusoria

METEORIC IRON OF IQUIQUE IN PERU.

BY GUSTAF. ROSE.

This paper was left completed but unpublished by its eminent author, and has now been included in the volume issued by the "Gesellschaft Naturfooschender Freunde der Berlin," as the "Festschrift" of its recent centennial meeting.

This mass of meteroric iron originally weighed twenty-five pounds. The part in the museum of the University weighs twenty pounds. It was fouud ten leagues to the east of the village of Iquique near the western boundary of the Pampa of Tamarngul. Raimondi, the original describer of it, obtained for the specific gravity 7.86. In an analysis by Rammelsberg 2.66 per cent. was removed by solution of chloride of mercury.

The composition of the parts gave:

Iron.	*Nickel.*	*Phosphorus.*	*Insol. in H2 C. L.*
2.17	0.37	0.05	0.07 — 2 66

The nickel and cobalt of the insoluble part was found to be 15.49 nickel and 0.19 cobalt; this left 81.66 for the iron. Raimondi found three pieces of it to contain 81.42, 85.61, 87.59 of iron, and 18.52, 14.37, 12.38, of nickel.—*Sillimans Journal.*

INFUSORIAL EARTH.

The numerous uses which the silicious remains of the microscopic animals, nown as diatoms or infusoria, have found, is illustrated by the following list iven by Gruene and Hagemann, the proprietors of the large German mines at berohe and Hutzel:

1. As pure silica in the finest state of division, it is employed in the manufacre of water-glass, water-glass soap, artificial stone, cements, patty lute, and tramarine.

2. Because it is a poor conductor of heat, it is employed for packing steam d hot air apparatus, and pipes, where it excels every other material in lightness, isolating fire boxes, and catching radiant heat by protecting shields filled with earth, etc.; for filling the space around money safes and ice chests; for lining l encasing the conduits for melted metals in founderies, and in the laboratories a support for heating vessels that break easily.

3. Because of its property of absorbing liquids, in which it surpasses that of other material previously known, it is employed for rapid filtration, making cipitates solid, making dynamite and other explosives, and making cheap rs, because the infusoria take colors like cotton. In surgery it is used for rption bandages and supports. The ability of infusorial earth to take up five s its own weight of liquid, and to suck it up rapidly without becoming fluid, les it to replace the filter press. It is simply necessary to surround the filter a layer of dry infusoria, in order to obtain in a very short space of time the

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11757

same result that is obtained by ordinary filtration in days or even weeks. Simple drying restores to the infusorial earth its absorptive powers.

4. Owing to its great volume and slight weight, it is employed for packing very fragile objects and glass apparatus, etc., and mixing with plaster of Paris for making light casts.

5. Owing to its fineness it is used as a cheap polish for glass and metal, and is an excellent material for cleaning greasy vessels and pieces of machinery.—*Scientific American.*

DISCOVERY OF HUMAN BONES.

While some workmen were excavating some time ago, in a quarry of Jurassic limestone, near Belfast, in France, they discovered an opening in the hill which it was found led to a cave of larger dimensions. On entering the cavern, its floor was discovered covered with human bones, and so disposed as to lead to the belief that the cavern had once been used as a place of sepulchure.

Polished flint weapons, ornaments, and other articles were found, including several beautiful vases, and a mat of rushes. The authorities of Belfast at once took possession of the cavern in the interests of science, and designated Mr. Fel Voulot, an archaeologist of renown, to examine the cavern and its contents. The are no doubts but that these are the remains of the polished stone age, and sen are sanguine that further research will bring to light relics of a much older perio One writer in the *Berne Scientific* hopes to find remains belonging not only to th Tertiary, but even to the Crelaceons period. This cavern is situated in a bed c one of the lower strata of the Jurassic period, "on the exact limit of the shore c the ancient Jurassic sea."

NEW DISCOVERY IN AGRICULTURE.

The curious discovery is announced by Prof. P. B. Wilson, of Washington University, Baltimore, that minutely pulverized Silica is taken up in a free state by plants from the soil, and that such silica is assimilated without chemical or other change. The experiment consisted in fertilizing a field of wheat with the iufusorial earth found near Richmond, Virginia. This earth, it is well known, consists of the shells of microscopic marine insects, known as diatoms, which under strong magnifying powers reveal very beautiful forms that have been resolved, clafsified and named.

After the wheat was grown, Prof. Wilson treated the straw with nitric acid, subjected the remains to microscopic test and found therein the same kinds of shells or diatoms that are present in the Richmond earth, except that the larger sized shells were absent; showing that only silica particles below a certain degree of fineness can ascend the sap pores of the plant.

This discovery opens up a new line of research in agricultural investigation from which important results and much additional knowledge may accrue.

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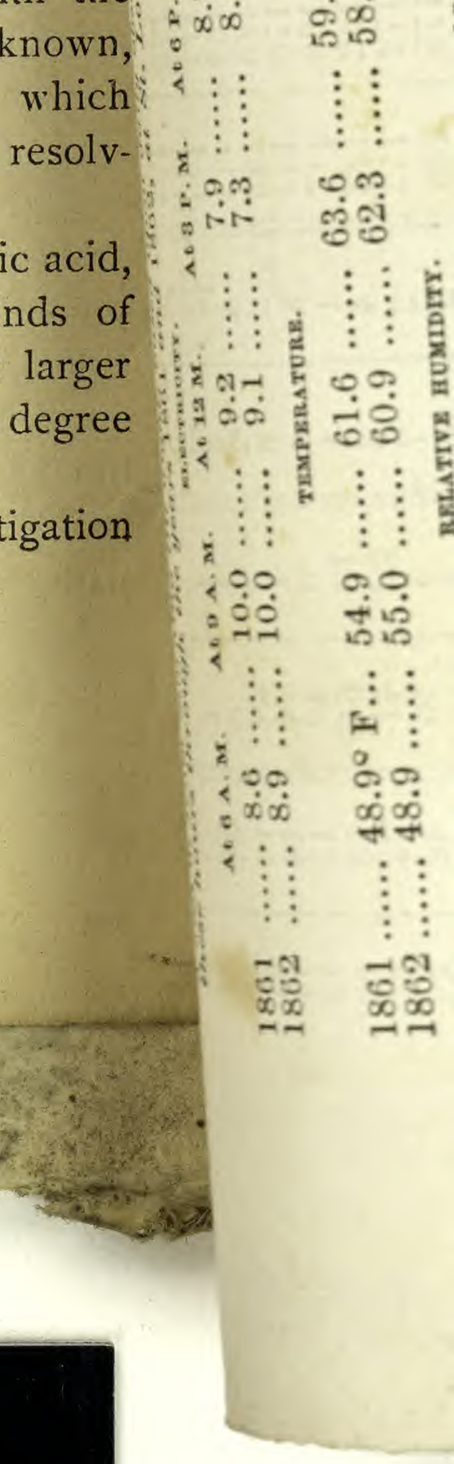

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III. *Yearly mean of Positive Electricity of Temperature, and of Relative Humidity of the Atmosphere, at the hours of* 6, 9, 12, 3, 6 *and* 9, *from morning till night, based upon daily observations at these hours through the years* 1861 *and* 1862, *at St. Louis, Mo.*

ELECTRICITY.

	At 6 A.M.	At 9 A.M.	At 12 M.	At 3 P.M.	At 6 P.M.	At 9 P.M.
1861	8.6	10.0	9.2	7.9	8.7	6.9
1862	8.9	10.0	9.1	7.3	8.1	6.8

TEMPERATURE.

1861	48.9° F...	54.9	61.6	63.6	59.3	54.3
1862	48.9	55.0	60.9	62.3	58.0	53.6

RELATIVE HUMIDITY.

1861	86.4	71.3	60.3	57.2	65.1	77.3
1862	5.3	70.6	60.0	57.5	67.6	78.0

637

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[illegible]	1	15	19	[illegible]			46	N.W. & S.E.	1
Nov.....	14	19	21	[illegible]			34	18	W. & N.W.	0
Dec.....	11	17	21	5	34	45	13	38	S., S.E. & W.	4
	112	191	211	230	259	265	351	550	S.E.	50

V. *Positive or Negative Electricity in the Observations of* '61 & '62.

	Positive Electricity.		Negative Electricity.		No Electricity, or 0.		Highest Positive Electricity.	
	1861.	1862.	1861.	1862.	1861.	1862.	1861.	1862.
Jan.....	179	179	3	5		2	40°	40°
Feb.....	162	166	6	2			34	33
March ...	168	179	15	8			30	48
April	157	157	12	22	1	1	33	52
May.....	171	180	17	5	1	3	25	32
June	162	143	5	2	8	20	16	21
July.....	183	153	3	8	1	24	14	11
August..	176	143	5	4	6	40	15	19
Sept.....	169	117	1	1	10	61	18	23
Oct.....	162	143	4	3	20	41	33	35
Nov... ...	172	157	2	7	6	16	42	42
Dec... ...	175	166	5	0	6	17	37	35
	2046	1883	78	67	59	225	42°	52°

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March 30 1871

Pine Pollen
fallen during a violent S.W. storm
March 14 1871 ÷

Madison

probably P. australis

(P. mitis not yet in bloom over south)

26.5 / 415 28.5 / 415

31 – 32.5 / 415 principally 32.5 / 415

35.5 – 37.5 / 415

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Leitch & Cortlies
DRUGGISTS
SouthWest Corner Fifth and Market Streets

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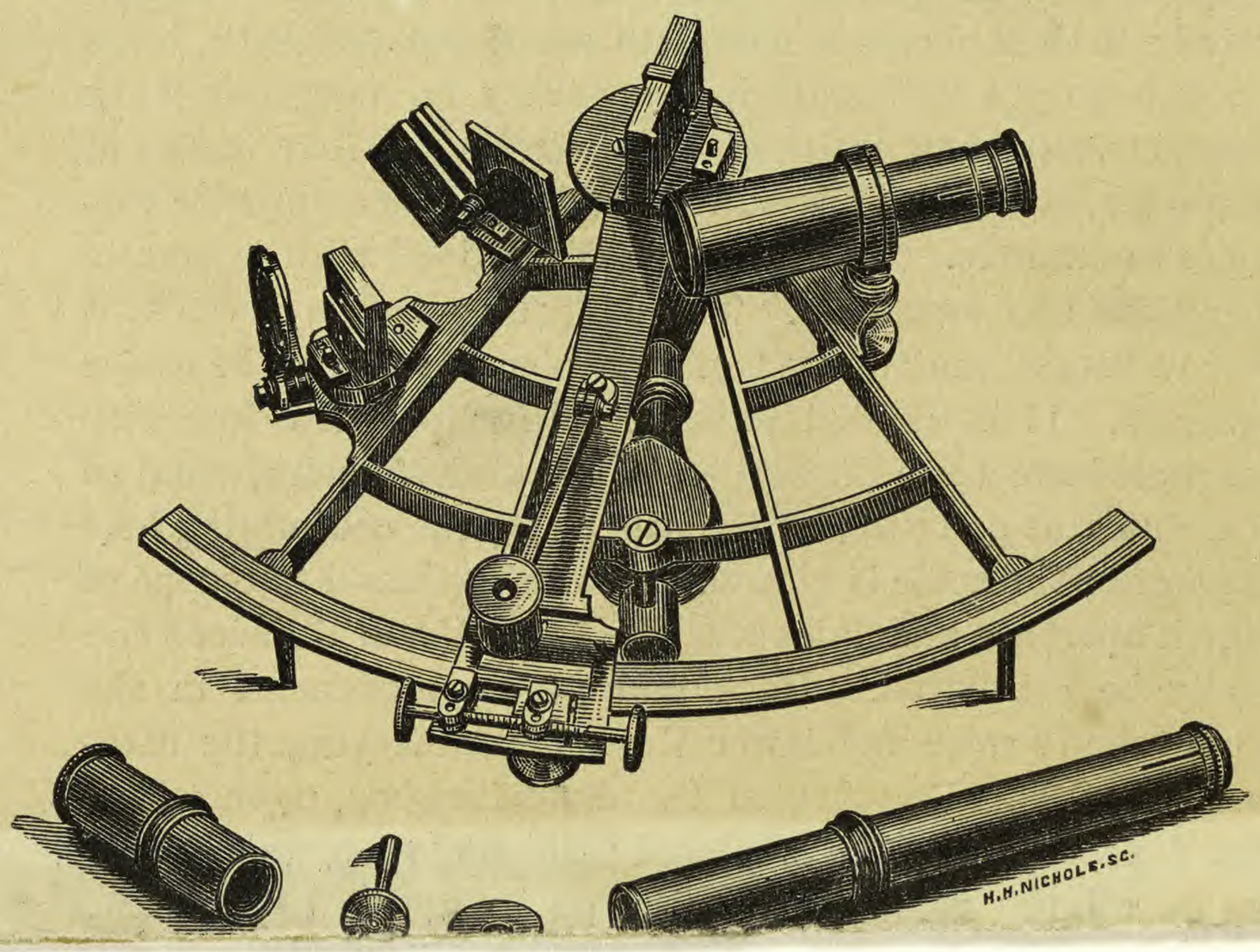
SEXTANTS.



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No. 70.—**Magnetometer**, as made by us for the United States Coast Survey. The magnet-box and small telescope, by which the scale of the intensity-magnet is read off, is detachable from the vernier-plate, and the standards, with the telescope of $1\frac{1}{8}$-inch aperture and 7 inches focus, can be substituted; it then forms a complete small Alt-Azimuth, large enough to get with sufficient accuracy for magnetic work time, azimuth and latitude. The circles are four inches in diameter, divided on silver, and reading by two opposite verniers to minutes. The telescope is provided with prismatic eye-piece and sunshade. The deflecting-bar is of wood, 4 feet in length, and formed of two pieces, so as to be easier to carry. It is divided to tenths of inches. The intensity magnets have a fine divi
5 minutes, at one end; a
is placed; the scale is v
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easily be estimated.
glass tube to raise and
net. A riding-piece fi
the deflecting magn

adjustment; packed in box, with all acc

LEVELLING-RODS A

Self-reading Levelling-rod, with targe
New York Levelling-rod, with target..
Ranging-poles, of iron tubing, from.....
Surveyor's Chains of the best steel wir
and rings; in poles and links, feet or m
compared with U. S. standard, from.....

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vided scale, one division being equal to
at the other end the collimating lens

erful, and has a clear
s focal length, erecting
nd, and very sensitive;
index lines to set cross-hairs duly vertical; four levelling screws; packed complete, with all accessories, with tripod.. 140.00

No. 68.—**Dumpy Level**, of superior construction. Telescope $1\frac{3}{8}$-inch aperture, erecting or inverting, and 10 or 13 inches focus respectively, sensitive bubble. This instrument will compare favorably with any of the other levels, as far as accuracy is concerned, while it is less liable to get out of adjustment; packed in box, with all accessories, with tripod. 80.00

LEVELLING-RODS AND CHAINS.

Self-reading Levelling-rod, with target (Philadelphia)..... 18.00
New York Levelling-rod, with target..... 16.00
Ranging-poles, of iron tubing, from.....4.00 to 6.00
Surveyor's Chains of the best steel wire, with brazed links and rings; in poles and links, feet or metres to any length; compared with U. S. standard, from..... 5.00 to 30.00

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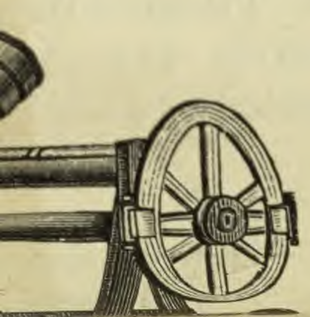

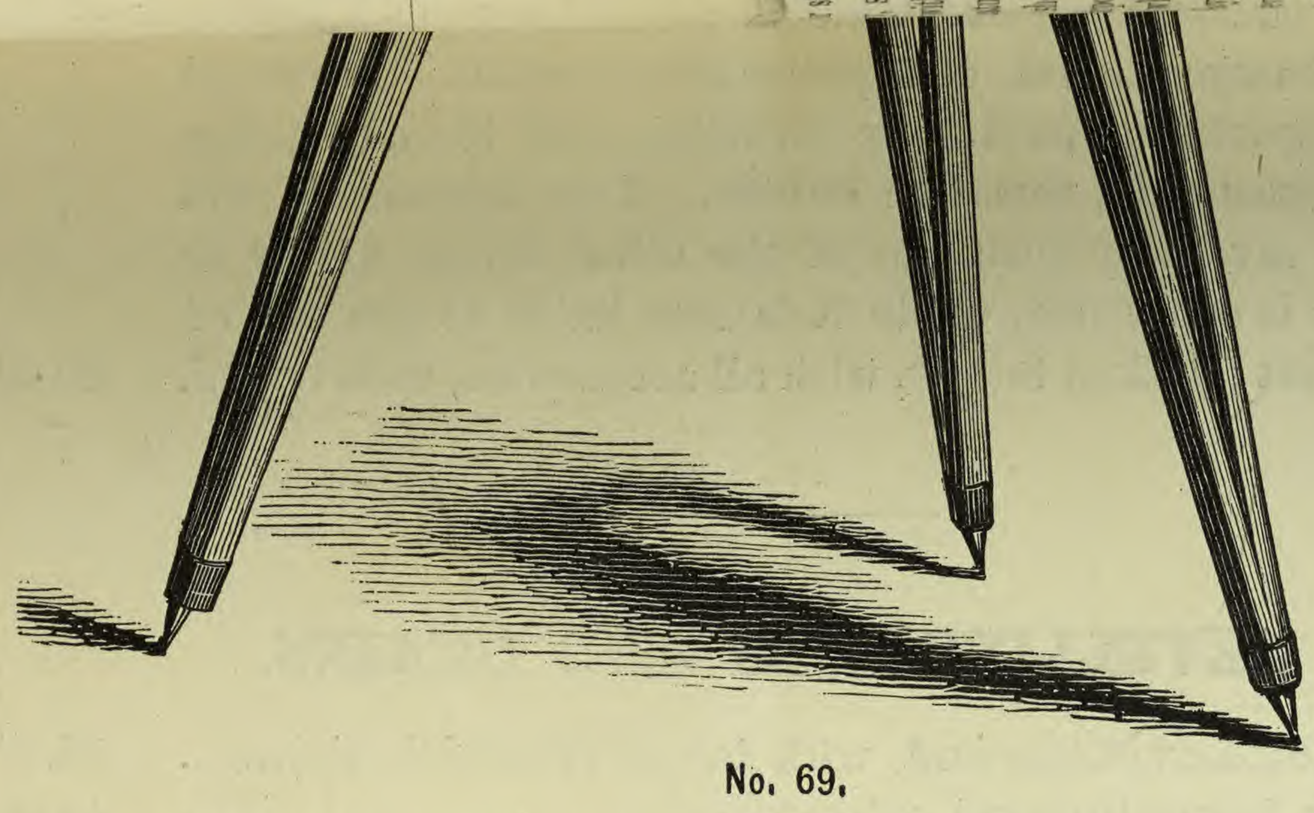

No. 69.

No. 69.—The above cut represents one of our plane tables with a portion of the board cut out to show the motion-work. The most simple and effective form of plane-table made. The bearing surface of the motion-work being over 8 inches in diameter, the table when

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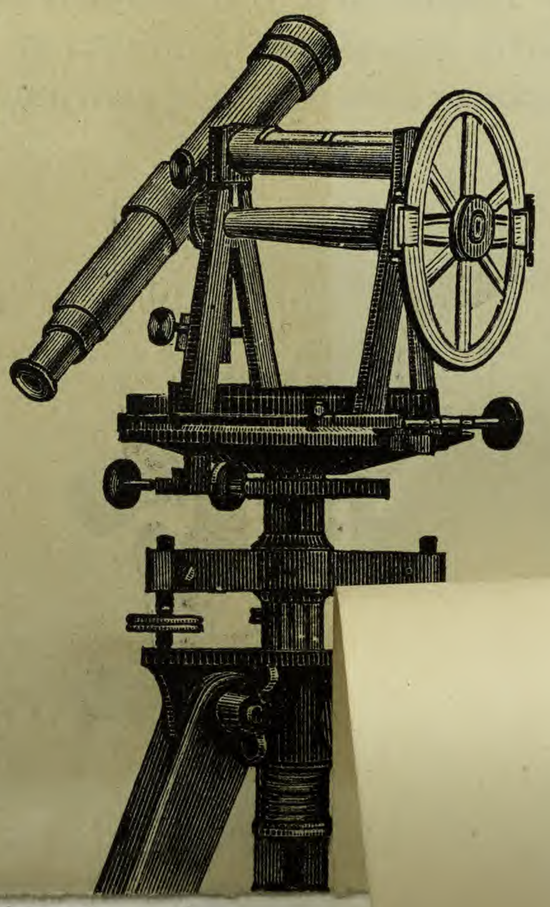
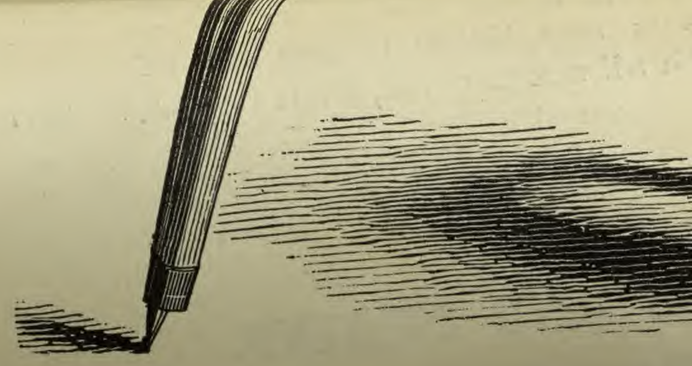
34 FAUTH & CO., WASHINGTON, D. C.

MINING TRANSIT WITH ECCENTRIC TELESCOPE.





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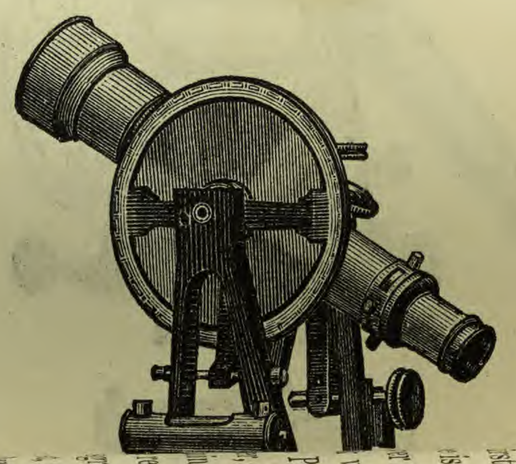
RECONNOISSANCE AND MINING TRANSITS.

Complete Transit Theodolite, also adapted to mining purposes, by addition of prismatic eye-piece, illumination for cross-lines and reading-lamp. We make two sizes of this instrument.



LEAH: A WOMAN OF FAS

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"Poor

you will die—not picturesquely before the altar, but hideously, slowly, in the aftertime, of the corrupting diseases of wealth and fashion—die, not in the flesh—that is little—but in the soul, and by your own suicidal hand."

"You are hard on me—and I am weak!" she falters in reply. "I must go now, and try to rest. Will you say one—only one forgiving word to me, first?"

She is white as the dress she wears. If ever the prophetic look of heart-break was on human face, it is on Leah Pascal's at this moment. And reader, judge her not by your code or by mine, but by her own. She has been reared in the belief that poverty is disgrace, and love, as opposed to interest, a kind of disease to be dreaded, shunned, and, if by chance it should assail you, overcome. Duty, to her mind, lies at present on the side of Jack Chamberlayne, and against Danton. After marriage—well, after marriage one must look round the world and see how other women in her position regulate their sentiments. But now—the money, the position unsecured—to vacillate is crime. And all the time she loves this man at whose side she stands with a miserable intensity of love to which some far better, far cleverer women could perhaps not rise. No foot rule, moral or mental, can help us much in our judgments upon others' weakness—or their strength! Calculating, mercenary, self-absorbed, Leah at least loves with the concentration of a narrow nature; will sell herself—aye, because she must—yet has not breadth of purpose sufficient to tear her heart from what she desires and abandons!

"Say one forgiving word to me—whatever I may become, say you will think a little of me, as a friend, while I live!"

"I shall love you always, Leah. And for the present, until the 'I will' is said that gives you to Jack Chamberlayne, I look upon you as mine."

So the "last words of the romance" are spoken.

CHAPTER XIX.

BELL BALTIMORE'S PHILOSOPHY.

To-morrow brings with it such relays of cooks, milliners, wine-porters, and hired waiters as fairly take all the inmates of the house off their equilibrium. Bonchrétien, with nightcap awry, flushed by delightful prophetic sense of general waste, and consequent profit to the firm, is here, there, everywhere. Cette pauvre chère Smeet, as upset as though she were to be married herself, mingles furtive tears, of perfectly vague origin, with the vanilla and orange flower water that she infuses into the pastry downstairs. The boarders snatch their meals as best they may, consoling themselves for the exceedingly short commons that Madame, in her wisdom, provides for them, by the reflection of the good time coming. Lord Stair goes away to his club. The Prince Charming is seen, by fits and starts, somewhat red about the eyes ("Brandy," says old Mrs. Wynch, with cruel decision), and falling, whenever he gets a chance, into affectionate raptures over Deb and Naomi—the two blessed motherless girls who will remain to him!—raptures during which the children stand mute and shame-faced, not knowing whether they are expected to laugh or cry. Cousin Bell, the morning mysteries of the dressing-table over, spends her time exclusively in Leah's room.

"Poor Miss Pascal's nerves are naturally a little shaken." So remarks Bell into the sympathetic ear of Bonchrétien. "Under the circumstances, we should prefer dining together upstairs — something plain and simple—an entrée or two, and a bird, and champagne. Oh, these weddings!"—and Bell raises her handkerchief to her eyes—"these weddings, my dear Madame, are always melancholy affairs enough when one comes to the last."

Nerves a little shaken! Well, salvolatile, rest, the sight of her trousseau finery, and three or four glasses of Cliquot will doubtless bring her

right. Mrs. Baltimore, in her sufficiently varied experience, has never known grief in which a like course of treatment has proved ineffectual. And *she* has forfeited the society of her husband, has separated for life from her children, been cut in turn by the whole of her good acquaintance, seen her dearest friend take her richest lover, and once—fearful climax!—ran the very narrowest chance of losing her eyelashes after chickenpox. Leah is evidently hipped. Looking dispassionately at Jack Chamberlayne, and having the "last words of the romance" and the face of our handsome tenor well in mind, can it be wondered at? So are women's lives constituted. Happily their powers of forgetting go far toward rivalling those of men, although their external resources, under the first weight of trouble, may be more limited.

"If you were to cry, Leah, it would do you good—not to the extent of disfiguring yourself for to-morrow, of course, but a good wholesome cry of about ten minutes. It relieves something on the brain. I remember the doctors telling me so when my sisters-in-law took Pussie and Floss away from me. And all these things are bodily! It does not do to confess it, my dear, but I have read numbers of medical books in my time, and I must say, every day I live I grow more of a materialist. Cannot cry? Well then, use the smelling salts constantly. The effect is nearly the same."

Leah sits before the fire, as she has done since she rose at midday, inert, silent. She is in a dulled state of nerves, as one might be who, having made up his mind fully to the surgeon's knife, experiences already, by anticipation, the deathly painlessness that *succeeds* to pain.

"You are very kind, Bell. I believe you are sorry for me, a little. And—and would you mind not talking at all about what I feel, please? When to-morrow comes I shall pull through it as well as other people do, no doubt, if I can only sleep a bit to-night."

"Laudanum might make you sleep," says Bell, well versed, like every woman of her type, in the science of narcotics. "Only it leaves that unmistakable look—not the look for a bride—about the eyes. And chloral, till one knows one's quantity, is an experiment. If I were to prescribe sincerely what I think would do you the most good, it would be—music! Just to go down to the salon and hear two or three of M. Danton's charming songs. Ah, Leah, my child," and Bell's voice softens—positively something of womanly pity is in her cold blue eyes—"do you think I am really so blind as not to see how matters have stood between M. Danton and you?"

Leah starts, conscience-stricken; for a second, her impulse is to rise, fling herself upon her cousin's breast, and sob out her secret there. Then she remembers what Bell is—what she is so soon to be herself—and hardens back to steel.

"M. Danton?" How odd her voice sounds! When she is married, when all this living wretched present has become a dream, surely she will command it better as she speaks of him. "I think I may answer in the words you used last night, Bell. Whatever my crimes, no one need accuse me of a weakness à la Maggie McDormond."

"Well, no," answers Bell slowly, and fixing her eyes steadily on the girl's face. "Maggie McDormond sacrificed her interest to her passion. You have not sunk so low in my opinion, Leah, that I would suspect you of that."

"Of what do you suspect me, my dear Bell?"

"Of caring for M. Danton too much for your own happiness, Leah! That you have honestly tried to say the last words of the romance, I believe—the last words of the first volume of the romance," adds Bell, in spiteful parenthesis—"and that you found them taste bitter I know also. My dear child, do you think we have not all gone through the same thing? Why, before I married Mr. Baltimore——"

FAUTH & C

No. 70.—Magnetometer, Coast Survey. The me which the scale of the int able from the vernier-pla scope of 1⅛-inch aperture tuted; it then forms a c enough to get with suff time, azimuth and latitu diameter, divided on silve niers to minutes. The t eye-piece and sunshade. feet in length, and forme to carry. It is divided magnets have a fine divid 5 minutes, at one end; at is placed; the scale is vie ¾-inch aperture and 3 inc easily be estimated. Ra glass tube to raise and lo net. A riding-piece fits the deflecting magnet is

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882. **Corsair** (*Pearson*).
883. **Ernest** (*Pearson*). Brilliant scarlet.
884. **Mrs Turner** (*Pearson*). Splendid bouquet, dark rose.
885. **Lady Byron** (*Pearson*). Rose.
886. **Mrs Rogers** (*Pearson*). Pale rose.
887. **Lucy Bosworth** (*Pearson*). Clear rose.
888. **Ethel** (*Pearson*). Rosy lilac.
889. **Mrs T. F. Fenn** (*Pearson*). Lilac rose.
890. **Annie Orton** (*Pearson*). Purplish rose.
891. **Laura Strachan** (*Pearson*). Brick red.
892. **Ellen** (*Pearson*). Salmon.
893. **Mrs Vickers** (*Pearson*). Amaranth.
894. **Rev. F. Atkinson** (*Pearson*). Scarlet.
895. **Ino Gibbons** (*Pearson*). Dark scarlet.
896. **Brutus** (*Pearson*). Lively scarlet.
897. **Pirate** (*Pearson*). Carmine scarlet.
898. **Rev. S. Hey** (*Pearson*). Red.
899. **Sir H. S. Stanhope** (*Pearson*). Very dark crimson.
900. **Charles Smith** (*Pearson*). Lively crimson.
901. **Mrs Leacroft** (*Pearson*). Red, white centre.
902. **Mrs Whitely** (*Pearson*). Scarlet, white centre.
903. **A. Henderson** (*Pearson*). Cochineal, white centre.
904. **Earl Manvers** (*Pearson*). Lively crimson, white centre.
905. **Dora Charlton** (*Pearson*). Crimson, white centre.
906. **Laura** (*Pearson*). Dark crimson, white centre.
907. **John Fellowes** (*Pearson*). Lively cherry.
908. **Mrs Huish** (*Pearson*). Cherry red.
900. **Little Carr** (*Pearson*). Carmine cherry red.
910. **Mrs Paget** (*Pearson*). Rose.

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splendens.

834. **Enfant de l...** ... on the upper petals.

835. **Député Valentin** (*Lemoine*). Nosegay; dark violet purple, enormous umbels, a dwarf and very fine variety.

837. **Ere nouvelle** (*Lemoine*). Amaranth rose, of good form.

842. **Juanita** (*Bull*). Rosy salmon, darker towards the centre which is white.

843. **Potamas** (*Bull*). Clear brilliant scarlet, the upper petals shaded crimson.

844. **Hébé** (*Bull*). Pure white, shaded and irregularly marked salmon, centre rosy salmon, a very fine variety.

845. **Thétis** (*Bull*). Pure white, rose zone in the centre of the flower.

846. **Adair** (*Bull*). Rich carmine, thick petals, a fine variety.

847. **Salvator** (*Bull*). Brilliant scarlet, white centre.

848. **Jubilee** (*Bull*). Tender lake rose, a very distinct variety.

849. **Métis** (*Bull*). Flower large, lively scarlet, white centre.

850. **Pallas** (*Bull*). Dark rose, marked white on the upper petals.

851. **Europa** (*Bull*). Rich scarlet, white centre, a floriferous variety, of perfect form.

852. **Ernestine** (*Bull*). Fleshy rose, shaded salmon, rose in the centre.

853. **Cameron** (*Bull*). Magenta purple, marked vermilion on the upper petals.

866. **Fairy** (*Bull*). Flesh, richly spotted and shaded dark salmon, a very fine variety.

867. **Beauty** (*Bull*). Large flower, white, striped and pointed rose and salmon, of fine effect.

868. **Charmer** (*Bull*). Pure white, striped and pointed rose, a very beautiful variety.

869. **Spangle** (*Bull*). White, clearly striped and spotted brilliant rose.

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3190, Wright Cuba

ramulus tenuis sterilis, juniore glauco
foliis binis tenuissimis (rarissime ternis) 5–6½ longis
(alb-strictulis ?)

Gracilis annotinus persistentibus brevi-lanceolatis
~~integrisculis~~ 1½–2½ lin. longis juniora tenuia reticulati
Demum integrisculis

Vaginis juvenilibus ½, annotinis 3 l. longis

Strobilo (sub hoc nemore) vetusto ovato-ovoideo
3" longo 09–$\frac{12}{21}$ (5–8 ser. pronis) obliques
squamarum umbone depresso rhombeo transverse
transverse carinato, tridentato rugoso.
angulo suprafoveam orbi producto
elevatim carinuli pone immersa plana multo

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Wrightii
1462 b (Schaffner)
stabilis 2, 1½ - 1¾" longis ovatis, basi truncatis;
57. 13/21 8 × 13. (5 × 8. ser prom.) aculeibus, petalis
pedunculo 6-7" longo (petalo, sequi recurvis
stipato — (latenti 2½ poll. supra apicem ramuli
to
sequenti in N. 2

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ALEX. LE

APOTHECARY &

Cor. 4th and Olive Sts.

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cm 0 1 2 3 4 5 6 7 8 9 10
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1462 Wydler Cuba

1462 6/2, femina fruticosa foliis binis ternionibus
vix ternis (raro quaternis) albostriatulis 6-9" longis
bacteris annis priorib fere persistentibus; omnibus
lanceolatis subacutis recurvis lin 1½-2 longis
vaginis juvenilibus 5. adultioribus 6. 4 lin longis
strobilo ~~globo~~ - recurvo (pedunculato) ad apices
ramulis (pedunculo 5 lin longo) aequali recurvis
stipato — ovali 2" longo, basi parum turbinato
(59 13/21) aequali
squamis transverse rhombeo-ovatis umbone
depresso, basi parum producto transverse rarius
radiatim rugoso; elevatione centrali immersa
parum nitida
semine oblongo rhomb triquetro, vix ~~angulato~~ costato
ala obscura semen aequante centrali triquetro
latiuscula

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